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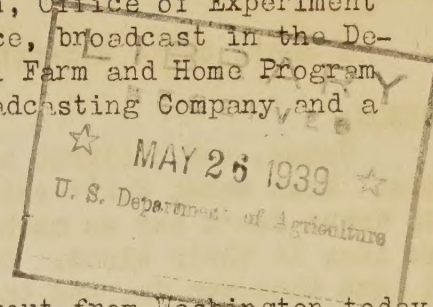
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## RESEARCH ON IRON

A radio discussion between Mabel Dickson, Office of Experiment Stations, and Wallace L. Kadderly, Radio Service, broadcast in the Department of Agriculture portion of the National Farm and Home Program Wednesday, April 26, 1939, by the National Broadcasting Company and a network of 99 associated radio stations.



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KADDERLY:

Well -- we have at least four things to talk about from Washington today -- the weather; iron, market reports and the "aftermath of the New England hurricane". First of all, Mabel Dickson of the Office of Experiment Stations will give you the latest news about iron in the diet.

Miss Dickson, if I remember correctly, iron was the first of the minerals in food to have the attention of nutrition scientists.

DICKSON:

Yes, long before they understood the body's need for minerals like calcium and phosphorus, they had discovered the connection between iron-rich food and healthy red blood. For many years they've understood that anyone living on a diet low in iron would eventually become pale and anemic.

KADDERLY:

Yet after all these years research on iron in food and human beings is still going on.

DICKSON:

Yes, there's still a great deal to find out which may help us have better diets and better health. About 20 State experiment stations are now doing research work on iron. Scientists have only learned recently that the iron in foods may not all be in a form the body can use. So they are now testing foods to find out how much available iron they contain. And they are also testing people to learn how much iron they need.

KADDERLY:

What are the foods now on the list as most helpful in building red blood?

DICKSON:

Eggs, liver, heart and kidney, lean meats, shellfish, whole grain cereals, green and yellow vegetables, beans and peas, dried and fresh fruit. Other good sources are molasses and sorghum syrup.

KADDERLY:

Quite a variety, there.

Has the nutrition research brought out anything new about the amount of iron people need for best health?

DICKSON:

Oh yes, a good many things. Probably the most significant conclusion as a result of recent research is that women and children are not first in iron but should be.

(over)



KADDERLY:

I don't quite understand you.

DICKSON:

Women, and children need more iron than men yet generally get less in their diets. Most women don't eat as big meals as men and so they get less iron. And most women don't eat as much meat as men do. These are two reasons why women have less iron in their blood. But fortunately, women eat more fruits and vegetables and eggs than men do, and the iron in these foods is all in a form the body can use.

KADDERLY:

You know, I've always been under the impression that women didn't need as much iron as men and that women's blood was naturally paler. I guess that old phrase "red blooded men" gave me the idea.

DICKSON:

You aren't alone in that idea. Scientists, and everybody else, believed it until just lately because their tests had showed that men's blood averaged 10 percent higher than women's in the red color containing iron. So for years they just concluded that this was the normal condition.

KADDERLY:

What made them change their minds?

DICKSON:

Well, for one thing, in the nutrition laboratory at the Arizona Station Dr. Smith experimented with rats. She found that female rats needed more iron than male rats. And other scientists, working with people, gave large amounts of iron to both men and women whose blood was considered normal. The men in these tests discarded the extra iron. That showed they didn't need it. But the women kept the additional iron and felt better for it. You see, there's quite a difference between so-called "normal" passable health and buoyant health. Probably most of the blood tests made in the past were on women who were in just passable health.

KADDERLY:

Well, how much iron do nutrition scientists now advise women to have if they want to keep in buoyant health?

DICKSON:

They don't know exactly. That's a problem they're still working on. But they do know that you need a good assortment of iron-rich foods every day.

KADDERLY:

A good assortment of iron-rich foods -- you say. What is a good assortment? Let's go over a list of the foods a woman needs every day.

DICKSON:

Alright. Every day a woman should eat an egg; whole grain cereal or bread; meat or fish; some dried fruit such as prunes, apricots, raisins or dates; fresh fruit; a potato; and 2 green or yellow vegetables.



KADDERLY:

All these foods every day?

DICKSON:

Yes, every day. And then once a week at least she should have a generous serving of liver, kidney, or heart because these meats are especially valuable as red blood builders.

KADDERLY:

I notice that you emphasize iron-rich foods every day. Can't you build up on your iron every now and then--every week say?

DICKSON:

No, because the body can't store much iron and because iron in food occurs only in traces, so you have to eat a variety of different foods every day to get enough.

KADDERLY:

Now, Miss Dickson, you said that women and children, generally speaking, get less iron than they need. So far you have only told us about women. What about the children?

DICKSON:

Well, time was when mothers dosed their pale anemic children with sulphur and molasses or gave them rusty water to drink. The modern mother doesn't have to resort to such dosing because she plans meals for her children that prevent anemia.

KADDERLY:

I've heard that babies don't have anemia as they one did since they get egg yolk and fruit juice so early in life.

DICKSON:

That's true. A baby kept too long on a diet of milk alone shows signs of anemia at 6 months--or less if its mother had a diet low in iron. So the modern baby at 6 months of age, not only gets egg yolk and fruit juice but also cereal--gruel and ground liver or scraped beef.

KADDERLY:

But it's easier to keep a baby supplied with iron than a little child with his own ideas of what he wants to eat. So what have you to report about the iron needs of the preschool child?

DICKSON:

Mothers of preschool children do have a serious responsibility for planning meals with plenty of iron-rich foods.

KADDERLY:

And also for teaching youngsters to like those foods. Has any research been done at the experiment stations on the iron needs of preschool children?



DICKSON:

Yes, Minnesota and Georgia workers recommend from 1/2 to 2/3 as much iron as a woman needs.

KADDERLY:

Then a mother can be sure her child of preschool age has enough iron by giving him the same iron-rich foods she herself needs, in smaller amounts.

DICKSON:

Yes, and let me add that with a good start on iron in early life, the iron problem is pretty well taken care of until adolescence.

KADDERLY:

You mean that from kindergarten to high school children usually have enough iron if family meals are good?

DICKSON:

Yes, if the meals are good. However, Florida workers examined about 5000 rural school children and found that 2000 of them were definitely anemic. This was largely because the family meals were low in iron-rich foods. And further, what vegetables they had, were grown on soil poor in iron.

KADDERLY:

Haven't I heard that children in their teens are likely to be anemic?

DICKSON:

Girls, from 11 to 16 years very often suffer from lack of iron. These young girls actually need about as much iron as grown women. But boys can get along nicely on less.

KADDERLY:

Well, so that's the latest picture of iron needs at different ages. And from what you've said I should think farm families have the advantage as far as iron is concerned. By planning and producing their own foods, they can provide an ample supply of eggs, meat, vegetables from the garden, fresh, canned, and dried fruits, whole grain cereals, too.

DICKSON:

Yes, it's the families that live mostly on starches, sugars, and fats that miss out on iron.

KADDERLY:

Thank you, Miss Mabel Dickson, for this report on nutrition research in iron from the various State experiment stations.